

REMARKS/ARGUMENTS

Favorable reconsideration of this application is respectfully requested.

The specification is amended by the present response to make minor clarifications. The Title is also amended to be more clearly directed to the claimed invention. The changes made to the specification are deemed to be self-evident from the original disclosure, and thus are not deemed to raise any issues of new matter.

Further, replacement Figures 1B, 5A, 5B, and 6A-6D are submitted herein in which each of those replacement figures is now labeled as “Prior Art”.

Claims 1-6, 8, and 9 are pending in this application. Previously withdrawn claim 7 is canceled by the present response without prejudice. Claims 1-6 are amended and claims 8 and 9 are added by the present amendment. No new matter is believed to be added.

Claims 1, 2, 5, and 6 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. patent 6,483,146 to Lee et al. (herein “Lee”). Claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as unpatentable over Lee.

Addressing the above-noted rejections based on Lee, those rejections are traversed by the present response.

Initially, applicants note independent claim 1 is amended by the present response to clarify features recited therein. Specifically, independent claim 1 now recites a “control electrode” and that “the adjacent floating electrodes have a plurality of step portions at opposite sides, a tapered concave portion extending from the step portions is arranged in a depth direction of the semiconductor substrate between the floating electrodes”. That claimed subject matter is believed to be clear for example from Figure 4B in the present specification, showing for example the control electrode 24 and the floating electrodes 8.

According to features clarified in independent claim 1, a boundary layer, which is the boundary between floating electrodes and control electrodes, is formed in a step shape, and

an interval between the floating electrodes is greater at the upper portion of the floating electrode than at the lower portion of the floating electrode. Therefore, an electrostatic capacity between the floating electrodes can be reduced.

Moreover, as the outer circumferential length of the floating electrode can be sufficiently ensured, the capacity between the control electrode and the floating electrode is not reduced, and only the capacity between the floating electrodes can be reduced.

Moreover, since the control electrode is embedded in the concave portion and is formed between the floating electrodes, the capacity between the floating electrodes can be reduced. This result is because the polycrystalline silicon film is embedded so as to hold an ONO film into the concave portions, and thereby a wraparound capacity from the lower portion between the floating electrodes can be reduced.

The structure clarified in the claims is believed to clearly distinguish over Lee. That is, Lee does not disclose or suggest such a structure of floating and control electrodes as recited in the amended claims.

The outstanding rejection cites Lee to disclose floating electrode 76D. However, that element in Lee does not have the claimed step structure, and Lee does not disclose any element corresponding to the claimed "control electrode".

Thereby, the claims as currently written are believed to clearly distinguish over Lee.

As no other issues are pending in this application, it is respectfully submitted that the present application is now in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.

Respectfully submitted,

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IN THE DRAWINGS

The attached sheets of drawings include changes to Figs. 1B, 5A, 5B, and 6A-6D. These sheets, which include Figs. 1B, 5A, 5B, and 6A-6D, replace the original sheets including Figs. 1B, 5A, 5B, and 6A-6D.

Attachment: Replacement Sheets